## Mixed Shrub/Grass Associations (4,159,693 acres or 5.34% of Montana)

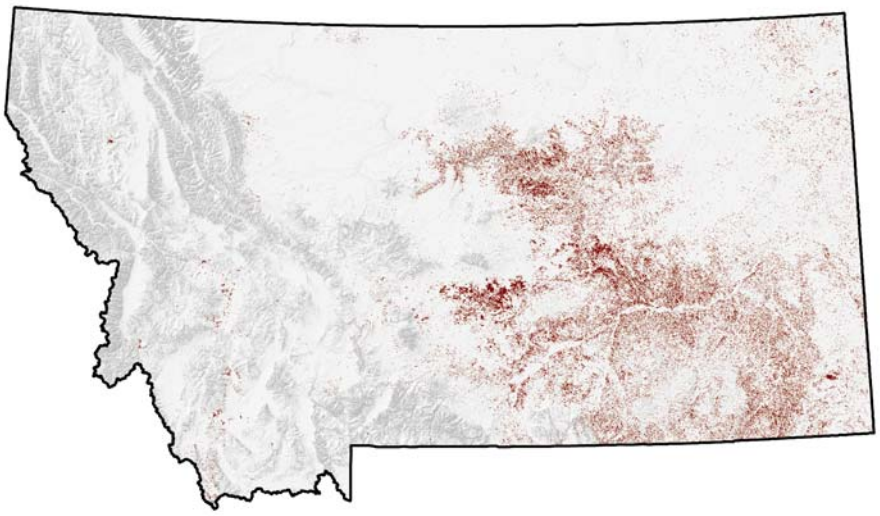

Figure 38. Distribution of Mixed Shrub/Grass Associations Community Types

The mixed shrub/grass associations community types include the shrub-dominated areas that also support grass. These types can be either moist (mesic) or dry (xeric) but usually occur at low elevation and often along lower slopes. These communities are the transition between pure shrub and grass communities and support a very unique assembly of associated species.

### Mesic

Mesic occurs primarily in central and eastern Montana valleys and along some low mountain slopes. Mesic shrub-grassland associations occur with codominance between the shrub and grass species. Shrub and grass cover ranges from 10 to 50 percent. It is found on moist sites usually between pure grass- and shrub-dominated regions.

### Essential Associated Plant Community

### Grass

Bluebunch Wheatgrass *(Agropyron spictatum)*
Bluestem *(Andropogon* spp.)
Fescue *(Festuca* spp.)
Needle-and-Thread grass *(Stipa comata)*
Threadleaf Sedge *(Carex filifolia)*
Western Wheatgrass *(Agropyron smithii)*

**Shrubs**

Buffalo Berry *(Shepherdia argentea)*
Choke Cherry *(Prunus virginiana)*
Silver Sage *(Artemisia cana)*
Snowberry *(Symphoricarpos* spp.)
Sumac *(Rhus* spp.)

**Xeric**

Xeric occurs primarily in central and eastern Montana valleys and along some low mountain slopes. Xeric shrub-grassland associations occur with codominance between the shrub and grass species. Shrub and grass cover ranges from 10 to 50 percent. It is found on dry sites in valleys and is usually between grass-dominated and shrub-dominated regions.

**Essential Associated Plant Community**

**Grass**

Blue grama *(Bouteloua gracilis)*
Bluebunch Wheatgrass *(Agropyron spictatum)*
Bluestem *(Andropogon* spp.)
Fescue *(Festuca* spp.)
Needle-and-Thread grass *(Stipa comata)*
Western Wheatgrass *(Agropyron smithii)*

**Shrubs**

Rabbitbrush *(Chrysothamnus* spp.)
Sagebrush *(Artemisia* spp.)

**Associated Species of Greatest Conservation Need (Tier I Species)**

There are a total of 39 terrestrial vertebrate species that are found within the mixed shrub/grass associations community type, with 10 of these species being essentially associated (essentially associated species are shown in bold). All associations can be found in Table 41. Note: Wildlife associations within the mixed shrub/grass associations community type were underestimated due to unresolvable issues. This should be considered when interpreting species associations with mixed shrub/grass associations in this Strategy. Future revisions should clarify and resolve these wildlife associations with the mixed shrub/grass associations community type.

**Reptiles:** Western Hog-nosed Snake and **Milksnake**

**Birds:** Greater Sage-Grouse, Mountain Plover, and Burrowing Owl

**Mammals: Spotted Bat** and **Black-tailed Prairie Dog**

**Conservation Concerns & Strategies**

| Conservation Concerns | Conservation Strategies |
|---|---|
| Loss of habitat due to conversion of native habitat to agriculture or as a result of human population growth/development | Support private land easements that protect natural habitat to provide large blocks of a diverse mosaic of shrub/grass habitats |
| | Incentives and education for private landowners to protect natural habitat |
| | Support government and private conservation programs/activities that encourage and support private land stewardship |
| | Promote further development of county ordinances that help guide future residential and commercial development in mixed shrub grass habitat |
| | Identify and prioritize key wildlife linkage areas in this community, and work with other state and federal agencies, conservation groups, and landowners to restore wildlife connectivity |
| Invasive species and potential for spreading | Work with off-road vehicle users to help reduce spread of invasive weed |
| | Create a stable native seed source for shrubs and grass restoration |
| | Support cooperative efforts to reduce the abundance of exotic or invasive plant species |
| Oil, gas, coal, coal bed methane, and geothermal development | Monitor leasing and development decisions and regulations applying to geophysical exploration |
| | Research the impacts such as road building and water retention pond construction as they relate gas and oil development activities |

| | |
|---|---|
| Range or forest management practices | Support government and private conservation activities that encourage and support sustainable land management practices (example; rest and rotation schedules) |
| | Work with other agencies, organizations and private land owners to develop incentives that will promote the conservation of native shrub/grass habitats |

**References**

Casey, D. 2000. Partners in Flight Bird Conservation Plan Montana Version 1.0. Montana Partners in Flight. Kalispell, MT.

Conservation Management of America's Public Lands: An Assessment and Recommendations for Progress 25 Years after FLPMA. 2001. National Wildlife Federation and the Natural Resources Defense Council.

Ostlie, W. R, R. E. Schneider, J. M. Aldrich, T. M. Faust, R. L. B. McKim, and S. J. Chaplin. 1997. The status of biodiversity in the Great Plains. The Nature Conservancy, Arlington, VA. 326 pp + XII.